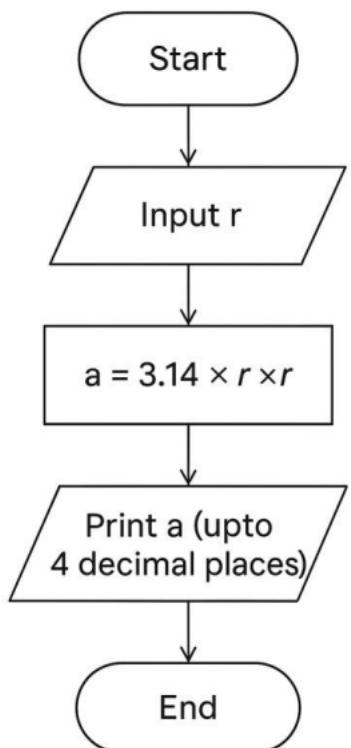


EXPERIMENT 1.1.1- AREA OF CIRCLE

ALGORITHM:

Start**Input:** Read the radius (r).**Process:** Calculate the area by multiplying $3.14 * r * r$.**Output:** Print the result (formatted to 4 decimal places).**Stop**

FLOWCHART:



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SEC-C1

CODE:

The screenshot shows a code editor interface with two panes. The left pane displays a problem statement for calculating the area of a circle. The right pane shows the corresponding Python code and its output.

Problem Statement (Left Pane):

1.1.1. Area of Circle

Write a Python program that calculates the area of a circle when the radius is provided by the user. Use $\pi = 3.14$ and display the area.

Input Format:

- A single line containing a floating-point number representing the radius.

Output Format:

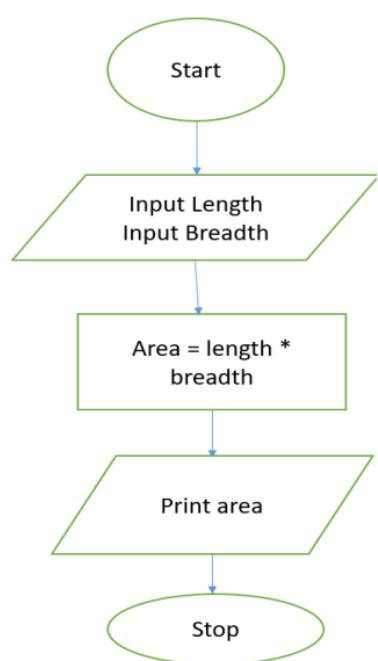
- Print the computed area of the circle formatted to 4 decimal places.

Code (Right Pane):

```
1 #Read the radius as a float
2 radius =float(input())
3
4 #define the value of pi
5 pi =3.14
6
7 #calculate the area
8 area =pi * radius * radius
9
10 #display the area formatted to 4 decimal places
11 print(f'{area:.4f}')
12
```

Output (Bottom Right):

```
25
1962.5000
==== YOUR PROGRAM HAS ENDED ====
~~~
```

EXPERIMENT 1.1.2- AREA OF RECTANGLE**ALGORITHM:****Start****Input:** Read length and width.**Process:** Calculate the area by multiplying length *width.**Output:** Print the result (formatted to 2 decimal places).**Stop****FLOWCHART:**

CODE:

The screenshot shows a code editor interface with a dark theme. On the left, there's a sidebar with a tree view labeled "Explorer". The main area has a title bar "1.1.2. Area of Rectangle" and a status bar at the bottom showing "02:20" and other icons.

Description: Write a Python program to calculate the area of a rectangle given its length and width.

Formula:
Area of Rectangle = Length × Width

Input Format:

- First line contains a float value representing the length of the rectangle
- Second line contains a float value representing the width of the rectangle

Output Format:

- Print the area of the rectangle as a float value formatted to 2 decimal places.

In the code editor, the file "areaOfRe..." is open, containing the following Python code:

```
length=float(input())
width=float(input())
area = length * width
print(f"{area:.2f}")
```

At the bottom of the code editor, there are three input lines: "20", "20", and "400.00". Below these, a message reads "YOUR PROGRAM HAS ENDED ===".

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EXPERIMENT 1.1.3- CALCULATE THE AREA OF SQUARE

ALGORITHM:

Start

Input: Read the value for side_length from the user.

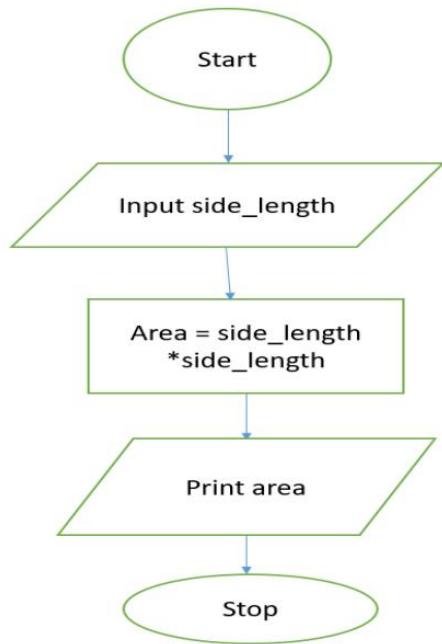
Process: Convert the input value to an integer.

Calculation: Calculate the area using the formula: Area = side_length²

Output: Print the calculated area.

Stop

FLOWCHART:



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SEC-C1

CODE:

1.1.3. Calculate Area of the Square

Write a Python program that prompts the user to enter the *side_length* of a square and computes the area of the square.

Formula:

- $\text{Area} = \text{side_length}^2$

Input Format:

- The input is a positive integer value that represents the *side_length* of the square.

Output Format:

- The output is a positive integer value that represents the area of the square.

Explorer AreaSqua...
1 side_length=int(input())
2 area=side_length * side_length
3 print(area)
4
5
6
7
8
9
10
11

720
518400
==== YOUR PROGRAM HAS ENDED ===

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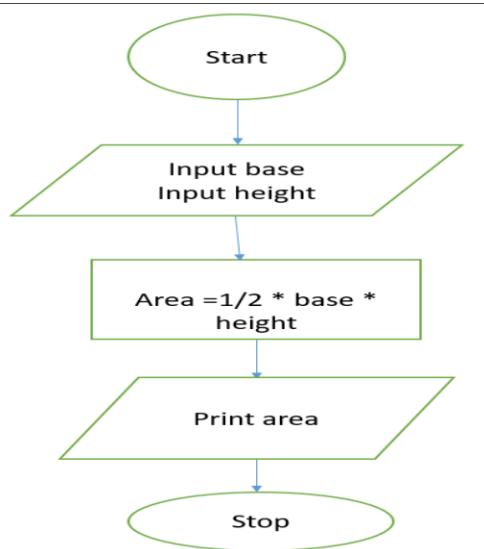
EXPERIMENT 1.1.4- AREA OF TRIANGLE

ALGORITHM:

- Start
- Input base
- Input height
- Compute area = $0.5 \times \text{base} \times \text{height}$

- Display area (rounded to 2 decimal places)
- End

FLOWCHART:



CODE:

The screenshot shows a Python code editor interface. On the left, there's a description of the task: "1.14. Area of Triangle" and "Write a Python program that prompts the user to enter the triangle's base and height and computes the triangle's area." It also includes the formula $\text{Area of Triangle} = 0.5 \times \text{base} \times \text{height}$. Below this, there are sections for "Input Format" and "Output Format". "Input Format" specifies that the first line of input is the base and the second is the height, both as float values. "Output Format" specifies that the output is the area of the triangle, formatted to two decimal places. On the right, the code editor shows a file named "triangleA..." with the following content:

```
1 base=float(input())
2 height=float(input())
3 area_of_triangle=0.5*base*height
4 print(f'{area_of_triangle:.2f}')
```

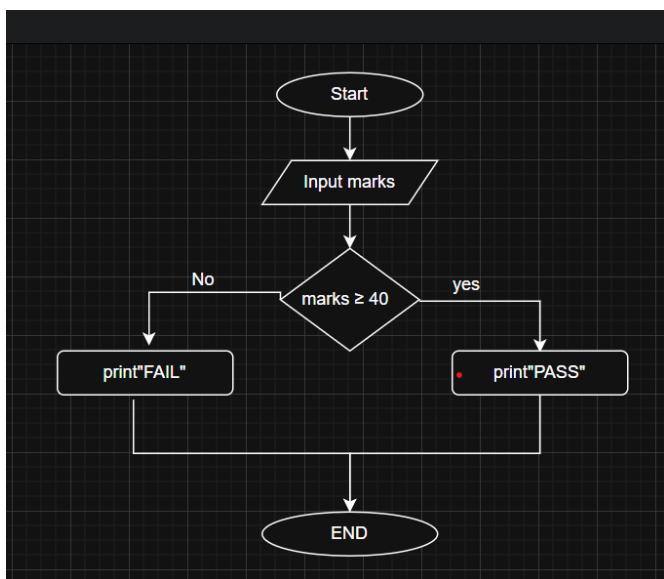
At the bottom of the code editor, there are three command-line input fields containing "67", "4", and "134.00" respectively. Below these fields, a message box displays "==== YOUR PROGRAM HAS ENDED ====".

ALGORITHM:

Start

1. **Read** the student's marks (let's call the variable marks).
2. **Check** if marks is greater than or equal to the passing threshold (e.g., 40).
3. **If condition is True:**
4. Print "PASS"
5. **If condition is False:**
6. Print "FAIL"
7. **Stop**

FLOWCHART:



CODE:

The screenshot shows a code editor interface with the following details:

- Title Bar:** 1.1.5. Student Pass or Fail Status
- Code Editor Content:**

```
marks = int(input())
if marks >= 40:
    print("Pass")
else:
    print("Fail")
```
- Output Window:** Shows the execution results:

```
57
Pass
==== YOUR PROGRAM HAS ENDED ===
```